REMARKS

Claims 30-48 remain in the application. Claims 35-42 have been withdrawn from consideration. The Examiner indicated that claims 31 and 44-48 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. These claims have been so amended and should now be in condition for allowance.

Claims 30, 32, 33 and 43 were rejected under 35 USC 102(b) as being anticipated by Cole. Regarding claims 30 and 43 the Examiner stated:

> "Regarding Claim(s) 30 and 43, Cole discloses a method of making a magnetic head comprising: forming a coil layer 108 (in Fig. 5) with the coil layer being embedded in an insulation stack I1, I2; forming the coil layer with a filament which spirals in a flat coil plane which is parallel to the flat planar head surface and about a central axis which is perpendicular to the flat planar head surface and the flat coil (see Figs. 3 and 4); . . . "

Claim 30 is distinguished over Cole by reciting:

> "A method of making a horizontal magnetic head having an air bearing surface (ABS) for facing a moving magnetic medium, comprising:
>
> . . . . . .
>
> forming said at least one coil layer with a filament which spirals in a plane which is parallel to said ABS and about an axis which is perpendicular to the ABS;"

This structure is shown in Applicants' Fig. 5 wherein the at least one coil layer 52 spirals in a plane which is parallel to the ABS and about an axis which is perpendicular to the ABS. As stated in the preamble, Applicants' ABS is for facing a moving magnetic medium. In contrast, Fig. 5 of Cole shows his ABS perpendicular to the plane of the paper at 83 and 88 with his coil layer 108 having a filament which spirals in a plane which is perpendicular to his ABS and about an axis which is parallel to his ABS.

Further, in regard to claims 30 and 43 the Examiner states:

> ". . . . . forming the first pole piece with a first horizontal component PT1b with a first edge (vertical edge of PT1b at the ABS); forming the second pole piece with a second horizontal component PT2b with a second edge (vertical edge of PT1b at the ABS); forming a write gap layer G between the first and second edges;"

Claim 30 is further distinguished over Cole by reciting:

"forming the first and second edge surfaces with first and second surfaces which are perpendicular to the ABS and which are first and second thicknesses respectively of the first and second horizontal components respectively wherein the degree of each thickness is formed by sputtering or plating over a period of time;

forming a write gap layer between and interfacing the first and second surfaces of said first and second edge surfaces;"

This structure is shown in Applicants' Fig. 5 wherein the edge surfaces 68 and 70 have thicknesses which are formed by sputtering or plated over a period of time. Applicants' write gap layer 60 is located between and interfaces these surfaces 68 and 70. In contrast, the write gap layer G in Fig. 5 of Cole interfaces surfaces of PT1b and PT2b which are not thicknesses of the components 84 and 88 and do not have a thickness that is formed by sputtering or plating over a period of time. The sputtering and plating are illustrated in Applicants' Figs. 7D-7F along with the specification that describes these figures.

Further, in regard to claims 30 and 43 the Examiner states:

". . . . forming a first shield layer S1 (in Fig. 6) having a third edge (vertical edge of S1 at the ABS); forming a magnetoresistive, or MR, sensor 66 and first and second gap layers G1, G2 with the MR sensor sandwiched between the first and second gap layers and the first and second gap layers between the third edge (of S1) and the first horizontal component PT1b."

Amended claim 30 is further distinguished over Cole by reciting:

"forming a first shield layer having first and second major planar thin film surfaces joined by a third edge surface with the first major planar thin film surface of the first shield layer forming a portion of the ABS and having a greater surface area than a surface area of said third edge surface; and

forming a magnetoresistive (MR) sensor and first and second gap layers with the MR sensor sandwiched between the first and second gap layers and the first and second gap layers located between the third edge and the first horizontal component and with the MR sensor and the first and second gap layers forming portions of the ABS."

This structure is shown in Applicants' Fig. 5 wherein the first shield layer 86 has first and second major planar thin film surfaces joined by a third edge surface 82 with the first major planar thin film surface of the first shield layer forming a portion of the ABS and having a greater surface area than

a surface area of the third edge surface 82. The first and second gap layers 82 and 84 are formed between the third edge 82 and the first horizontal component 88. In contrast, there is no teaching in Fig. 6 of Cole that his first shield layer 72 in Fig. 6 has a greater surface area at the ABS than the surface area of the first shield layer that interfaces the first gap layer 68.

Claim 43 recites similar limitations as claim 30 and is considered to be essentially distinguished over Cole for the same reasons as given in support for claim 30.

In regard to claim 32 the Examiner states:

> "Regarding Claim(s) 32, the first horizontal component PT1b of Cole has a fourth edge (read as the vertical surface of PT1b at the ABS) that interfaces the second gap layer G2 to that the first horizontal component serves as a second shield layer S2 (in Fig. 6) for the MR sensor."

Amended claim 32 recites:

> "said forming of the first horizontal component forming the first horizontal component with a fourth edge surface which interfaces the second gap layer so that the first horizontal component serves as a second shield layer for the MR sensor."

As shown in Applicants' Fig. 5 the first horizontal component 88 is formed with a fourth edge surface 68 which interfaces the second gap layer 60. In contrast, the fourth edge, which is interpreted by the Examiner as the vertical surface of PT1b in Fig. 5 of Cole, does not interface Cole's gap layer G, but in contrast, is perpendicular thereto.

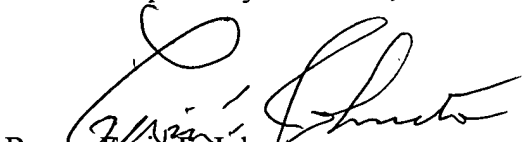
Claim 33, which is dependent upon claim 30 is considered to be patentable over Cole for the same reasons as given in support for claim 30.

Claim 34 was rejected under 35 USC 103(a) as being unpatentable over Cole in view of Krounbi. Claim 34 is considered to be patentable over these references for the same reasons as given in support for claim 30.

Please note that the undersigned has a new telephone number which is **808-661-1197.**

Should the Examiner have any questions regarding this document he is respectfully requested to contact the undersigned.

Respectfully submitted,



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